Exhibit E

UNITED STATES DISTRICT COURT
for the
Eastern District of Pennsylvania

JASON MARINO and JOY MARINO, et al, Plaintiffs	)	
V.	)	CIVIL ACTION NO. 514cv046729(JLS)
PILOT TRAVEL CENTERS, LLC, et al, Defendants	)	

VIDEOTAPE DEPOSITION OF DR. ERIC BROWN

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REPORTED BY:
ROBERT MILLER
Licensed Shorthand Reporter
License #10

... Deposition of Dr. Eric Brown being of lawful age, held pursuant to the Rules of Civil Procedure before Robert Miller, a duly qualified Notary Public, within and for the State of Connecticut, held at the Hyatt Regency Hotel, Greenwich, Connecticut on August 27, 2015 at 10:14 a.m.

STIPULATIONS

IT IS HEREBY stipulated and agreed by and among counsel for the respective parties that all formalities in connection with the taking of this deposition including time, place sufficiency of notice and the authority of the officer before whom it is being taken may be and are hereby waived.

IT IS further stipulated and agreed that objections other than as to form are reserved to the time of trial.

IT IS further stipulated that the proof of the qualifications of the Notary Public before whom the deposition is being taken is hereby waived.

IT IS further stipulated and agreed that the reading and signing of said deposition by the witness is hereby waived.

THE VIDEOGRAPHER: We are now on the record. This is beginning of DVD number one in the deposition of Dr. Brown in the matter of Marino versus Pilot Travel Centers, LLC and Sovereign Consulting, Inc. in the United States District Court for the Eastern District of Pennsylvania, Case Number 514 C.V. 04672 JLS.

Today is Thursday, August 27, 2015 and the time is 10:14 a.m.

This deposition is being taken at the Hyatt Regency Hotel, Greenwich, Connecticut at the request of Post & Schell, P.C.

The videographer is Chris Johnson of Magna Legal Services and the court reporter is Robert Miller of Magna Legal Services.

Will counsel and all parties present state their appearances and whom they represent?

MR. LYNAM: Tom Lynam for the plaintiffs.

MR. LAMB: Patrick Lamb for Sovereign.

MR. HARRINGTON: Tom Harrington for Pilot Travel Centers.

THE VIDEOGRAPHER: Will the court reporter please swear in the witness?

DR. ERIC BROWN,

called as a witness, having first been duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

THE NOTARY: Please state your full name and address for the record.

THE WITNESS: Eric Brown, Stamford Nephrology, 30 Commerce Street, Stamford, Connecticut 06902.

DIRECT EXAMINATION BY MR. LAMB:

Q Doctor Brown, good morning. My name is Patrick Lamb. I represent Pilot Travel Centers -- I mean Sovereign Consulting. I represent Sovereign Environmental Consulting. I am going to take your deposition today.

We spoke briefly before the deposition about some protocols and stuff like that. You waived reading and signing the deposition, as I understand it, correct?

A Yes.

Q And you have indicated you're ready to testify this morning, correct?

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A Yes.
Q If at any time -- we are in a kind of an executive suite in the hotel room. If you're distracted by anything, please tell me and I will be happy to rephrase or restate any question. Okay?
A I will. Thank you.
Q We are here in Stamford, Connecticut which is the location of your offices, correct?
A Yes.
Q You're at 30 Commerce Road?
A Yes.
Q Pretty close to here?
A Yes.
Q Just a couple of things regarding your curriculum vitae. You are a nephrologist, am I correct?
A Yes.
Q What are you board certified in?
A Internal medicine and nephrology.
Q How long have you been board certified in nephrology?
A Since probably around 1990.
Q You went to Columbia undergraduate and Emory for medical school?
A Yes.

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Q What was your residency in?
A Internal medicine.
Q Did you do a fellowship after that?
A I did in nephrology.
Q Where did you do your fellowship at?
A At Yale.
Q Okay. Now what do you do, do you treat patients on a regular basis?
A I do.
Q And how many patients do you see average a week?
A I would say I see upwards of maybe 150 a week.
Q In the office or in the hospital?
A It is a mix, hospital/office and dialysis unit.
Q Looks like you have two partners Dr. Hines and Dr. Chin?
A Yes.
Q We have your report August 14, 2015. Is this the only report you wrote in relation to this case?
A It is.
Q It is three pages, correct?
A I believe so, yes.

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Q So, in looking at this report. I have some questions for you about the report. What did you review to write this report? What records?
A So I reviewed some reports and I have listed them. I reviewed the materials and engineering group report which was sort of a forensic report about Mr. Marino's clothing.
I reviewed some pathology reports by Doctor Robert Coven and the Columbia pathology report which is the original pathology report. The report prepared by Dr. Neil Jenkins, depositions of the Marino family, basically.
And then the medical records I had available were some outpatient records from Mr. Marino's primary care doctor, his dialysis records, there's an access center where he had some work done there, then St. Luke's Hospital, Allentown which was the admission during which he started dialysis and had a renal biopsy.
Q So, your opinions start, I believe, on the second paragraph of page two, correct?
A Yes.
Q Then you say based upon my review of these records I've reached the following conclusions. You say first, then you list your conclusions, right?

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A Yes.
Q It is a pretty long paragraph. We will pare through that in a second. But did you rely upon the opinion provided by Dr. Coven in coming to your opinions?
A Not so much. I had reviewed the Columbia pathology report and independently reached the opinion that there was acute renal failure on top of the chronic injury based on the description of the tubules. So I found Dr. Coven's report validating, but it wasn't part of my original opinion.
Q And did you see anywhere in the Columbia report that indicated that there were acute renal changes?
A Yes.
Q Where?
A Let me get the sentence.
Q I will give you a highlighter. I will want to look at it. With that small type, I don't want to spend five minutes trying to find it.
A Okay. Here it is. It is on page four of five. And the sentence that struck my eye when I initially read it was proximal tubule display, focal loss with apical brush border. And I highlighted that.

All these pathology reports contain a disclaimer, "clinical correlation as necessary".

So, as a clinical nephrologist looking at the report, and knowing his clinical story, if someone was fine and then got sick after exposure to an nephrotoxin and actually looking for signs of an acute injury, you can see the clinical information that the pathologist has has unexplained renal insufficiency, then smallish kidneys, and then toxic exposure versus undiagnosed chronic kidney disease.

So, it doesn't really have as much clinical history as I have from looking at the clinical records. So, I am looking at this trying to put the whole story together, a large part of which is the biopsy finding. So, that proximal tubule display, focal loss of apical brush border says to me that there's an acute injury. So, I just found it validating that Dr. Coven said the same thing or interpreted it in the same way.

Q Biologically, why is the focal loss of the brush border not just an incidental finding to your opinion?

A I am almost embarrassed to answer it this way, because I have been taught that the signs of acute tubule injury can be subtle and this is what

they are.

Q I just want to go through the medicine with you for a second.

A Okay.

Q There was extensive scarring to the glomeruli, right?

A Yes.

Q And there was extensive scarring to the interstitium.

A Yes.

Q So, we have extensive scarring to the glomeruli which are the filters in the kidney that filter the blood, right?

A Uh-hum.

Q You have the answer yes or no?

A I'm sorry, yes.

Q Then we have extensive scarring to kind of tissue between the glomeruli?

A Yes.

Q And between the tubules?

A Yes.

Q So, if we look at a kidney and we look inside, we would have these glomeruli, we have these tubules, right?

A Yes.

Q And they are kind of independent bodies?

A Yes.

Q You can nod your head, but make sure you say yes.

A All right.

Q And the interstitium is kind of the ground between, I imagine them almost as trees and the bushes, and the ground between the tubules and the glomeruli is the interstitium, right?

A Yes.

Q And we showed extensive scarring to the interstitium, correct?

A Yes.

Q What percentage of the glomeruli had been sclerosed or compromised to the point that they weren't functioning?

A The glomeruli was probably --

Q I thought it was 75 percent. I could be wrong.

A The number I have in my mind is 75 percent of both. I think I can answer your question.

Q Don't get ahead of me here. So the glomeruli, 75 percent of those are what they call sclerosed or basically, out of commission, right?

A Yes.

Q So, if we look at Mr. Marino's kidney, we are saying the glomeruli that filter the blood, three quarters of those as of the date of the accident are gone?

A Yes.

Q The tubules, I thought it was in the sixties in terms of the percentage of those that had been, basically, rendered inactive, am I right?

A Let me look at that.

Q I don't want to misquote the report.

A Right. I just want to be precise about that too. 75 percent of both.

Q So, on May 5th Mr. Marino had a kidney that at best had 25 percent of its tissue still viable?

A Yes.

Q And we know that those changes, those 75 percent changes were due to some type of chronic disease?

A Yes.

Q But here is the problem, right, no one knows what that chronic disease was?

A Right.

Q In other words, all the testing, all the medical treatment he's gotten, no one has been able to figure out why Mr. Marino had chronic kidney disease?

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A Yes.
Q And by chronic, we mean over years. And I don't think by your report, you don't disagree that he's had changes to his kidneys that have been ongoing for some time before he was at the Pilot Travel Center?
A Oh, I think it was since childhood.
Q Okay. So, if we don't know what is causing the chronic changes and you are going to come in here and say well, I see some acute changes -- let's for a hypothetical, let me agree with you that there may be some acute changes, how can you determine that the acute changes aren't due to what is causing the chronic changes?
A So, what you have with the kidney biopsy is you're looking at a cross-section of the kidneys. You can't necessarily say which tubule is attached to which glomeruli. I mean you can to some extent, but not really. You have about million of the glomeruli in each kidney. And when you lose 75 percent of them you lose 75 percent of them. You have 25 percent remaining. Those 25 percent have a glomerulus. And they are attached to a proximal tubule and that tubule is attached to a distal tubule and that produces urine. That should be relatively intact. That is the

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way the disease works.
If you lose some of them and the remaining ones are working and in fact, they are overworking, which is why we as nephrologists think we can prevent kidney disease from progressing. Because when you have few remaining filters, the remaining ones are working harder and they are in effect worn out, to put it in a simplistic way.
Those tubules should be normal actually, those proximal tubules. The thing that damages proximal tubules is some kind of insult like a nephrotoxic insult.
And this kind of damage reflects an acute injury. This isn't glomerular disease that's attacking the proximal tubule, it's not an interstitial disease that's attacking the proximal tubule. The proximal tubule is a very metabolically active part of the kidney that is just very sensitive to any sort of nephrotoxic injury. So, it is really renal pathologists who are experts in this sort of thing. But as a clinician, I understand it. And this is the mechanism. And this is why this says to me second acute injury. It's just a different disease process completely.
Q Okay. I have two questions about that.

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Let me start with the first one. You said the proximal tubules to your mind should acute injury. You immediately told me due to a nephrotoxin. But it is true, isn't it, that looking at the pathology one cannot differentiate the cause of the tubular injury that's seen on the biopsy. In other words, it didn't have to be a nephrotoxin, it could have been another cause?
A Well, I mean a nephrotoxin is something that injures by definition, that's what a nephrotoxin does. Your point is correct. This is where the whole clinical correlation takes place. No pathologist can tell you exactly what it is without the clinical information.
Q For instance, if a patient had felt they had the flu and had a couple of weeks before the biopsy. And then they took a lot of Advil or Ibuprofen thinking that would make them feel better. I don't want to use the term overdose, but they had too much, that could cause injury to the proximal tubule that would show up as an acute injury?
A There is subtleties to it that a pathologist should answer when they can say it was a chemical nephrotoxin as opposed to ischemia which is really what I would struggle to do. I shouldn't

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answer that. I would be a hypocritical correlation -- you are asking more detail than a clinical nephrologist would know.
Q But in the Columbia pathology report there was no differentiation on those brush borders in the tubules as to what could have caused it. In other words, there was not enough information in the Columbia pathology report to say whether it was due to ischemia or due to a nephrotoxin, right?
A That is really a question for a pathologist because there are subtleties to that, where they will say it looks more nephrotoxic than ischemic. I am not trying to dodge the question, it is just out of my area of expertise. But, yes, there's not enough information for the Columbia pathologist to say what it was.
Q Let me go back to that question and answer. My question is, would you agree that there is not enough information in the Columbia pathology report for you as a pathologist to determine whether the injury to the proximal tubule was ischemic or was due to a nephrotoxin or was due to some other cause?
A Correct.
Q Did you review any literature concerning the effects of diesel fuel on a kidney or anything

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like that?
A I did, yes.
Q Which articles did you review?
A Unfortunately, I didn't print them. I have them. I can provide the names of all of them to you, but it was a series of clinical case reports. It was a series from Temple. There was a study that showed some hydrocarbon exposure as an accelerator.
Q You don't remember the literature you looked at necessarily right now?
A The papers -- I remember the content but not the titles.
Q Which case studies did you look at? I think we know them a little too well right now including myself. So, which ones do you remember looking at?
A Probably the same ones you've seen.
Q Which ones were there?
A There is an older series from Temple.
Q You say Temple, do you mean Temple University in Philadelphia?
A Yes.
Q I think I did print that one out.
A Acute renal failure due to nephrotoxins.
Q Could I see that one?

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MR. LYNAM: That's the very old one?
THE WITNESS: That's the older one.
BY MR. LAMB:
Q This was Reidenberg, right?
A Yes. There was a letter to the editor from Lancet that referenced this paper and reported that case. The first English case. There was the man who washed his hair with diesel fuel. The sailor who drowned and was rescued, that case as well.
Q But this paper, the Reidenberg paper, entitled Acute Renal Failure Due to Nephrotoxins is from 1964 and appears to be a case study of three cases, right?
A Yes.
Q It's not a controlled study of a large group of people?
A No. Nor would there be, obviously, to give people diesel fuel and see what happens.
Q You know, other doctors have said that. It is true, isn't it that people work with diesel fuel everyday, in refineries, gas stations and repair shops and they are exposed to it everyday, right?
A I imagine they are not exposed in this way. How they are exposed is --
Q Do you cut your own grass?

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A I don't actually.
Q Did you ever when you were a kid?
A Yes.
Q Did you ever have to fill up the gas tank on your mower?
A Yes.
Q And did you ever spill some?
A Yes.
Q On your hands?
A Yes.
Q And it's tough to get off, right?
A Yes.
Q In other words, the literature that is out there, what we have, it appears we have a 1964 article and then we have a couple of articles from the early '80s, I believe, and then a couple of the case studies from the late '90s. Do you recall that?
A Yes.
Q So would you agree there's a real absence of literature about the effects of diesel fuel on the kidneys given the prevalence of diesel fuel in our society?
MR. LYNAM: Objection to the form.
THE WITNESS: No. I think it is well-established that diesel fuel is a

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nephrotoxin. I don't feel like there's something missing from the literature.
BY MR. LAMB:
Q Okay. That was a different answer than I asked the question. My question was, you're right here on I-95 just past Stamford.
A Yes.
Q And I am sure that there's probably five or six gas stations in Stamford that probably sell diesel fuel for the truck drivers that pass through here?
A Yes.
Q So given the prevalence of diesel fuel in our society, it is a chemical that's widely available, don't you think that only having four case studies, say, since 1975 indicates that there's a absence of evidence in the literature for a link between diesel fuel and long-term kidney damage?
MR. LYNAM: I object to the form. You are mistaking the facts. You are leaving out the studies with hundreds of people. You're misstating the literature.
Instead of you summarizing a body of literature, you can give the doctor an article and ask him questions. He's not going to answer questions about your

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cursory summary of a 50 year body of medical literature.

MR. LAMB: Tom, I can ask him the question, he can answer the question. It is a discovery deposition.

BY MR. LAMB:

Q Could you answer the question please?

A If you could repeat it. Sorry.

Q Given the prevalence of diesel fuel in our society, don't you think that having only four case reports since 1975 in the literature indicates that there's an absence of information regarding the effect of diesel fuel on chronic kidney disease or long-term kidney disease?

MR. LYNAM: Objection to the form, misstates the facts.

BY MR. LAMB:

Q I am talking about the four case studies not the other study done in France.

MR. LYNAM: Objection to the form. Go ahead.

THE WITNESS: No, I think there's good literature that diesel fuel is a nephrotoxin. I don't think it is in someone who spills gas on their hands, but

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I think there's plenty of evidence that someone who has a significant exposure can have kidney damage.

BY MR. LAMB:

Q Now, when you read those case studies, it indicated to you unless I am wrong, I imagine, that the damage from diesel is typically damage to the tubules?

A Yes.

Q And that damage causes sclerosis of the tubules or was there some other --

A It is just injury to the tubule cells.

Q Right. Did you also agree that the case studies indicate that the damage to the tubules reverses itself?

A Yes.

Q And that typically individuals like the individual who's in the seawater in the Lee article and who ingested diesel as well as had dermal exposure or inhalation exposure, that his kidneys rebounded after a week or two or some specified amount of time?

A That would be very typical. That is the more typical course of exposure to nephrotoxin, that is someone would recover.

Q Okay. When you say it is the more typical,

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isn't that the only course that nephrologists are aware of? In other words, if there's diesel fuel exposure, there is damage to the tubules and the kidneys rebound back after a certain period of time? I mean there are no case studies that show that damage to the tubules continues into the future, right?

A Not that I saw. But no, the nature of sort of a nephrotoxic kidney injury is that the tubule cells will be damaged and we used to say that essentially everybody recovers. So, when I say essentially, 80-90 percent people will recover back to near normal renal function.

The current thinking is that that is probably not the case, the kidney are not the same after someone has a sort of what's called an acute kidney injury, which could be from a nephrotoxin or flu and non-steroidal scenario you described. But people may or may not recover completely. But clinically significant kidney damage after something like this is unusual.

You would have people with normal kidney function who take a hit and get acute kidney injury and should recover back to baseline. Almost always. If they don't, then you probably thought incorrectly about what mechanism of their kidney injury was.

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And then you have people who have really a severe nephrotoxic injury who won't recover. Will end up on dialysis and stay on dialysis. Then you have people with chronic kidney disease with exposure who are tipped over, which is the case here.

All of those are relatively typical scenarios. With someone with normal kidney function, exposed to a nephrotoxin even to the point where they almost need dialysis or may need dialysis once or twice will recover pretty good function again.

Q Is there any literature that -- where the doctors did a biopsy of the individual three or 4 weeks or any amount of time greater than that after exposure to diesel fuel?

A Some of the papers had biopsies. And I would have to relook at them with that specific question in mind. I couldn't answer that off the top of my head.

Q Is there any cohort study or advance study of more than -- a case study of more than one person than where nephrologists or pathologists have looked at a biopsy of an individual exposed to diesel who had kidney effects and they have looked at the biopsy taken six months later to determine if the injury to the tubules had reversed itself? You see what I am

saying?
A Right. You wouldn't do that in clinical practice. Where you might do that is if someone has an episode of acute kidney injury and then gets protein in the urine, gets a second kidney disease down the road and then you might do a biopsy. And you sort of would be coincidental. But you wouldn't do a biopsy on someone that's clinically recovered. What you would look at is their kidney function and you would expect it to be back to normal.
Q Right. And we agree on that. Exposure to a nephrotoxin like diesel that can cause tubular injury would in almost, you said 90 percent of the cases result in return to normal function of the kidney, right?
A In a healthy person, yes.
Q In a healthy person. Let's talking about any person, even someone with chronic kidney disease. What I am asking is, the real focus of a study that could determine if diesel fuel caused more than transient effects to the kidney would be for a scientist to get a bunch of people who were exposed to diesel fuel whether they had chronic kidney disease or were of normal health and take a biopsy six months after the exposure to determine if the tubules

actually did rebound fully or if there was permanent damage, right? That is what you would really want to see, if you really wanted to know the answer?
A Yes. Right. To sort of ask the abstract question and answer it that way. You would do serial biopsies.
Q Right. I understand that clinically that may not be called for, but there's a lot of research that takes place that might not necessarily follow clinical rules or clinical processes, right?
A Right.
Q If you really want to know, if you really wanted to say to yourself, hey listen, there's a bunch of people out there who have exposure to diesel. We know or at least we think based on case studies and some other things that diesel is a nephrotoxin that could cause a kidney injury to the tubules. You're with me so far? You agree with all that?
A Yes.
Q But if you wanted to determine if those damages from the diesel were long-term, you would have to take a biopsy 3, 4, 5, 6 months out from the date of exposure and then eliminate any other causes for ongoing damage to the tubules, right?
A That would be the scientific study you

would need to do because clinical measures of kidney function are insensitive to small changes in kidney function. So you could take -- let's say, everybody who is exposed to diesel fuel for X amount of time loses ten percent of kidney function. And obviously, I am not saying that happens, I'm saying hypothetically that could. Standard clinical measures of kidney function are insensitive if someone starts with normal kidney function. So, to prove they have long-term damage, you would have to do a kidney biopsy down the road.
Q The reason you would have to do that is because of the nature of the kidney that even when the kidney has limited function left, even when only a percentage of the kidney is still viable, the lab work from that kidney, urine studies, and blood studies could still show a "healthy kidney", right?
In other words, the kidney can trick the lab work because it works overtime to compensate for the portions of the kidney that sclerosed or die?
A With normal kidney function.
Q Sure.
A It's particularly insensitive if kidney function is normal.
Q And just so we are clear, you are not aware

of any studies of the ones we talked about where someone actually did a biopsy six months out from the toxic exposure to determine if the injury or insult from the exposure to diesel was longstanding or just transient, right?
A You are talking specifically about diesel?
Q Yes.
A I am not.
Q Are you aware of that for any of the components of diesel?
A For other hydrocarbons?
Q Right.
A I just don't know. That wouldn't be something I would know. I just wouldn't know.
Q So, when you opined that Mr. Marino had a diesel exposure at the end of March 2014 and that that caused acute changes in his kidney and that five months -- I am sorry, approximately five weeks later you're still seeing acute changes to the tubules, when you link that to the diesel exposure, you are not relying on a case study or literature or anything like that, that is just your opinion based upon the clinical record and the pathology?
A And a knowledge of clinical pathology, yes.
Q All right. What damage to Mr. Marino's

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kidneys made him stop working? Was it damage to the glomeruli, damage to interstitium, the damage to the tubules, what made him stop working?

A You mean the chronic disease --

Q No. No. When he presented St. Luke's Hospital, I believe it was May 1, 2014 -- let me start again.

When we presented to St. Luke's Hospital to the emergency department in May 2014, what part of his kidney brought him there? In other words, was it glomeruli damage, was it damage to the tubules, was it damage to the interstitium? What was it that made his kidney stop working?

A The most likely mechanism was some underlying disease and we don't know what that was. Whether that was primarily glomerular or primary tubular so that he was left with advanced primary kidney disease.

What, in my opinion tipped him over was then exposure to a nephrotoxin which would have knocked out the remaining filters in effect.

Q I understand that is your opinion. I am not trying to interrupt you. If I do interrupt you, please tell me. I get a little impatient sometimes with my questions. I don't want you to think that.

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Poor Mr. Miller here thinks I am talking a little fast.

MR. LYNAM: You only talk fast when you don't like the answer. You want to interrupt him.

MR. LAMB: You're catching on to me.

BY MR. LAMB:

Q I get excited. I get juiced up by the medicine a little bit. But my question is more specific than that.

Looking at the component parts of Mr. Marino's kidney, what part of his kidney failed that stopped the kidneys from working? Was it damage to the glomeruli -- I am sorry. Was it the loss to the glomeruli? Was it the loss to the tubules? Was it the interstitial disease? What was it?

A I think it is easier to think of just the glomeruli and tubules was the nephrons. It was loss of the remaining nephrons. And it was loss of the remaining nephrons that he couldn't filter enough toxins. So my belief would be that he had few remaining nephrons, far fewer than a normal person would have. And the remaining ones had this ATN or nephrotoxic ATNs.

Q ATN necrosis?

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A Yes. And that is what tipped him over.

Q So, you're calling the nephrons are the combination of the glomeruli and tubules?

A Yes.

Q The unit that was there?

A Yes. He didn't get a separate glomerular disease. He didn't get a separate interstitial disease. It wasn't a new mechanism of any sort, it was a nephrotoxic injury.

Q I don't think anyone eliminated FSGS, right?

A Well, he probably had FSGS. There's primary FSGS and secondary FSGS. I don't think he had primary FSGS because again we are dealing with reasonable medical certainty and this looks more like a disease that developed in childhood and slowly progressed. Primary FSGS wouldn't typically do that.

Secondary FSGS, however, would be a response to whatever he had. So, he probably did have secondary FSGS.

Q Is it your testimony that he had this, whatever this process was that was causing the damage to his kidneys, he had it since he was a child, since he was born?

A That is my bet, yes.

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Q And that it progressed over the course of his life?

A Yes.

Q Would you agree that he was going to lose function in his kidneys at some point in life?

A Yes.

Q No matter what happened?

A Yes.

Q Would you agree that during the course -- I think 30 years before he got to the Pilot Travel Center that he probably was exposed to other nephrotoxins?

A To what degree, I don't know. But sure, he probably took an occasional Advil. He was probably around other things as well I'm sure.

Q Well, we know from his testimony, I think you read his testimony that certain of the machines he used were powered by diesel fuel?

A Yes.

Q He, obviously, pumped his own gas on occasion?

A Yes.

Q He cut his own lawn?

A Yes.

Q He used certain adhesives, I think in his

plumbing business that were indicated as being toxic?
MR. LYNAM: Objection to the form. Misstates the facts. There's no evidence of that.
MR. LAMB: I think we have the MSDS sheets.
MR. LYNAM: We do.
BY MR. LAMB:
Q Do you whether he used certain adhesives or anything in his plumbing work that were nephrotoxins or could be considered toxic?
A I don't recall.
Q We know that he had 30 years of exposure to the world and the environment around us which includes some nephrotoxins, right?
A Yes.
Q Something as simple as an Advil is a nephrotoxin?
A Well, it's debatable, but it can be.
Q Well, in the right amounts. So --
A If someone takes five thousand pills over your lifetime -- it is a debatable issue.
Q Okay. There's a black box warning on the Advil label, right?
A Yes.

Q Meaning the FDA has asked the manufacturers of Advil and Ibuprofen and all the name brands to place a warning on the label that says this drug can cause kidney damage. It can cause other damage to your body, right?
A Yes. It is a matter of context with other medications and other illnesses, it certainly can in the average healthy person. But I think that is so tangential to this discussion.
Q I am sure you would like to see that. But no one had a biopsy of Mr. Marino's kidney before he got to the Pilot Travel Center, right?
A Correct.
Q And no one had any real lab work on his kidney function before he got to the Pilot Travel Center, right?
A I think it's fair to assume that the nephrologist who saw him in his teens would have it. I certainly hope so, but we don't know those results.
Q We don't know.
A Right.
Q So the day he showed up at Pilot, we don't know what his kidney function was and how many glomeruli or nephrons he had lost or where he was, whether he was very close to that tipping point you

talked about or far away from it, right?
A No, I think we know. I think we know that he probably had about a third of his functional kidney left.
Q Why do we know that? Why do you say that?
A From the scarring on the kidney biopsy, that didn't develop over six weeks. So, I think he probably had stage 3, 4 chronic kidney disease when he walked in the door, six weeks before he came to the hospital.
Q Maybe that's what I don't understand. How can you say that the biopsy that was taken during the first week of May gives you an indication of what his kidney looked like five weeks before unless you agree there were no substantial changes in those five weeks?
A Well, there's the difference between the acute changes and the chronic stuff. Again, this would be something more for the renal pathologist to talk about, the chronicity of it.
As a clinician looking at this biopsy report, my impression is that the scarring would have been present for sort of months kind of thing and the acute changes would be more acute than that.
Q But you can't sit here as a nephrologist and tell us that the acute changes versus the chronic

changes caused the final shut down of his kidney, can you?
A No. I believe that you can say that the acute changes caused the final shut down of his kidney. He was absolutely fine, working and had no symptoms prior to that and then was exposed to a nephrotoxin and then got sick over the time course that someone would become uremic with pretty much complete renal failure. So, I do think you can as a clinician say that, which is different from what you can say as a pathologist. What is chronic, what's acute.
As clinician I think you can clearly say that this was a clinical course that evolved over time after exposure.
Q Based on your information you have, what percentage of the tubules showed acute changes?
A The findings are subtle and that is all I can say as a nephrologist. Again, these are questions that all the different pathologists should answer.
Q If you are going to provide the opinion that these acute changes that you're seeing in the Columbia report, that were not noted in the findings of the Columbia report, are what allegedly pushed Mr. Marino over the tipping point. If you are going to

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hold that opinion -- do you hold that opinion or do you say I rely on the pathologists to hold that opinion?

A No, I hold that opinion. I read this report and thought as a nephrologist what my understanding of renal pathology is that the findings of ATN can be very subtle and if you see any of it at all it means there's a substantial amount of it. And this fits with my understanding of the clinical course. So, I saw that as validating.

Q Where did you learn that if you see any acute tubule necrosis at all that it is a substantial amount of it?

A I don't know exactly where. It's something -- a fact that I carry around.

Q If there was extensive acute tubule necrosis, it would have been noted in the Columbia pathology report, right?

MR. LYNAM: Objection.

BY MR. LAMB:

Q I mean you teach at Columbia, right?

A Yes.

Q Do you trust Columbia's pathologists?

A Yes.

Q You trust them to diagnose your own

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patients?

A Yes.

Q So, if they saw acute tubule necrosis to any degree that they thought maybe more significant than they were seeing, don't you believe those good board certified pathologists at Columbia would have noted it in their findings acute tubular necrosis?

A No. I think this is a typical pathology report. And usually as a clinician I would call the pathologist and talk about it with them. In fact they call us. It's never just a report.

Again, all I can say that as a clinician looking at this report, not having seen the patient, but with an awareness of the clinical course and not having directly talked to the pathologist that this fits with a biopsy of someone with substantial chronic kidney disease who has an acute injury, seen by the subtle findings of tubular injury.

Q So, it is your opinion that there is no chance that Mr. Marino's arrival at the emergency room in early May in 2014 was due to just only the chronic changes to his kidney?

A I don't think it was.

Q You don't think it was, is there any chance it was?

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A I don't think to any reasonable medical certainty there is.

Q Like what is the percentage chances it was due from chronic as opposed to acute?

MR. LYNAM: No. He's not going to answer that question. He's just said to a reasonable medical degree of certainty it was not related. Now you are going to ask him to put numbers on that?

MR. LAMB: It is federal court deposition. You can't do speaking objections especially with an expert.

MR. LYNAM: I get that. But I think the questions need to be fair.

MR. LAMB: I will ask it a different way.

BY MR. LAMB:

Q What does that mean to a reasonable degree of medical certainty to you? What percentage is that out of 100 percent?

A It is somewhere more than zero, but less than one. I think it is essentially inconceivable. This is the disease I spent the bulk of my professional life dealing with, namely chronic kidney disease. And people with chronic kidney disease

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progress slowly. Particularly someone like this who's probably had the disease since childhood. They don't just go like that. A switch doesn't turn off and they get symptoms without something else happening.

So, if there were no nephrotoxic events and I will be vague about what nephrotoxic events would be, but if it was just the course of chronic kidney disease, I would not expect him to develop explosive symptoms like that. I would expect him to progressively become fatigue, have morning nausea, metal taste in his mouth, insomnia, itch, trouble sleeping, trouble with numbers. Sort of slowly develop symptoms.

He is a young guy. Maybe his wife would be the one who notices it. But he's also a hard working guy, so he might have the symptoms of anemia. But this would not be the typical course of chronic kidney disease by any stretch of the imagination. This is a typical course of someone with chronic kidney disease, who has some superimposed injury.

And you are obviously well-versed in what those injuries could be. It could be a bad case of the flu. It could be taking a load of Advil. It could be any number of things, but one of those things is the one that he happened to have which is exposure

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to hydrocarbons or nephrotoxins. There's no doubt in my mind that that is what this is.
Q How many cases have you had like this in your career?
A Of patient with chronic kidney disease who --
Q Let's start with the nephrotoxin and then suffered kidney failure.
A It is a common situation. The bulk of my professional life is spent following patients with chronic kidney disease. Let's make it simple. Because the recommendations for care, certain guidelines for care are almost outrageous at their face which is to take someone who feels perfectly well with stage IV chronic kidney disease who might want to go on dialysis at some point or might think about a renal transplant, it's said that it is time to start talking to them about measures like transplant listing or preparation for dialysis. And they generally don't believe that.
The conversation you have to have is you're a bad case of the flu away from being on dialysis. Particularly if it's an older person. Particularly if you have late stage or chronic kidney disease. They feel perfectly fine, but something could tip them

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over.
Q Okay.
MR. LYNAM: Let him finish.
THE WITNESS: A lot of time is spent talking about that. And then how often does it happen, how often does someone unexpectedly end up on dialysis like this? A couple of times a year.
BY MR. LAMB:
Q Let me reask the question. I want to make sure you heard my question. Then I will follow up with a few things. How long have you been practicing as a nephrologist?
A About 23, 25 years.
Q Let's say 25. I am not trying to age you. Let's say, 25. How many cases have you had in this 25 years of someone who's had chronic kidney disease who is exposed to a nephrotoxin that propels them into renal failure? How many cases?
A I don't track that. I couldn't give you a number.
Q Do you think you have had any?
A Yes.
Q How many? Less than ten?
MR. LYNAM: He just said he doesn't

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track it. Are you asking the witness to guess?
MR. LAMB: I am not asking the witness to guess, I am asking him to estimate.
BY MR. LAMB:
Q Do you know if it is less than ten?
A Boy -- I just don't have an idea what the number would be.
Q And how many patients over the course of your 25 years have presented to you with underlying chronic kidney disease exposure to diesel fuel resulting in renal failure?
A Diesel fuel, I don't think I can say I have seen.
Q How many patients that have presented to you in these 25 years with underlying chronic kidney disease exposure to hydrocarbon gasoline diesel fuel oil that resulted in kidney failure?
A I've seen toluene intoxication, but not other hydrocarbons to my knowledge.
Q Have you seen toluene intoxication superimposed upon chronic kidney disease that leads to renal failure?
A No.

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Q So, in terms of the effects upon the kidney of a nephrotoxin, is there any study that measures a dose response relationship between the amount of the exposure to the nephrotoxin and the percentage damage to the tubules in the kidney?
A I am sorry.
Q I will ask it again. I am looking for any information you have in the literature or anywhere else of a dose response relationship between exposure to a nephrotoxin and resultant injury to the kidneys in terms of percentage tubules or number of tubules affected, anything like that?
A So, any nephrotoxin?
Q Any nephrotoxin.
A You are asking about --
Q I will ask it again. Is there some type of mathematical formula, is there some type of way of calculating saying if you're exposed to a nephrotoxin for three hours to 30 percent of your skin or for six hours to 40 percent of your skin, that your kidney function will be effected as follows?
A I see. I am thinking how difficult that would be to do because you have different size people, different numbers of nephrons. The closest thing I can think of is with Fleet phosphate soda literature

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where there's the nephrotoxin that includes use to prepare people for colonoscopy that caused kidney failure. And it wasn't biopsy studies but smaller people and women were more likely to get permanent renal failure and it was based on the size of the dose for the size of the person. So, there's things like that. I don't think there's studies like that.

That's a better question for some of the other people -- the experts in this case. It's not something that a clinical nephrologist would encounter.

Q I have to probe the extent of your knowledge. So, don't take it as anything other than me trying to figure out where your knowledge begins or ends or get close to that.

Are there any studies that show the results of exposure to diesel fuel in particular on the kidney? For instance, if you say if your skin is exposed to this much diesel or this concentration for this much time, it results in this percentage loss of glomeruli or tubulus. It would just be tubulus -- I'm sorry. Let me rephrase the question.

Is there any literature or any scientific study or any scientific formula or anything scientific which says exposure to diesel on your skin at this

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concentration results in this percentage loss or this number of loss of tubulus or any other effect on the kidney?

A So, that would be something that a toxicologist would know more than I would. As clinician the sort of evidence I look at is the case reports.

Q What I'm getting at, you believe that Mr. Marino had exposure to nephrotoxin diesel? You believe that pushed him over the edge, but you can't testify as to what percentage of the tubules or even the nephrons were damaged by that exposure?

A Correct. Nor does that have relevance to my opinion, but I can't testify to that.

Q Well, as you call it, the tipping point. There's a point with Mr. Marino's kidneys where the loss of the nephrons that includes the glomeruli and tubules became so severe that his kidneys ceased to function, right?

A Yes.

Q So, what was that percentage? Was that the percentage reflected in the Columbia biopsy after his kidneys failed?

A I don't understand the question.

Q Sure. There's a point at which Mr.

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Marino's kidneys shut down? They stopped working?

A Yes.

Q And that point can be quantified if you look at the number of glomeruli and the number tubules, right?

A Yes.

Q I mean we know, the Columbia biopsies show it was taken after his kidneys failed, the biopsy, correct?

A Yes.

Q So, we know after his kidneys stopped working, there certainly was no more damage to them?

MR. LYNAM: Objection to the form.

THE WITNESS: They are still working to some extent. There's ongoing damage.

BY MR. LAMB:

Q Explain that to me. If an individual is at end stage renal failure and their kidneys stopped working, could there still be damage to their glomeruli and tubules?

A Yes, there is. There definitely is. People will develop symptoms in about ten percent of kidney function or less. The remaining kidney function still actually has some benefits to them. It's not enough to keep them healthy, but when added

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to dialysis or to a transplanted kidney, it's actually important and it helps keep them feeling well. And there's a lot of correlates between keeping your residual kidney function on dialysis and survival. So, it is a big issue in nephrology. I don't think it has relevance here.

What I think it is important to understand is that when they look at this biopsy -- his kidneys we know are about eight centimeters on each side because they were imaged. They are looking at a tiny piece of kidney. They are looking at basically a centimeter piece of kidney. That's the size of a pencil lead in diameter. It's a small piece. And they are making inferences about the rest of the kidney. And those are pretty accurate, but so again this goes to my point about the ATN. If you see ATN on a little patch of biopsy, that has significance when you put it together with the clinical facts.

Q You're not calling the Columbia biopsy report unreliable, are you?

A No, I think it is completely reliable.

Q Let me get back to my other question. When Mr. Marino first reported to the emergency room at St. Luke's, he was in renal failure, right?

A Yes.

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Q There is no doubt about that?
A Correct.
Q When you're in that state of renal failure, the extent of renal failure that he has, where I believe, his lab work -- I am sorry I don't have it. Just give me second. I think his creatinine level was 14, is that right?
A Yes.
Q So, his creatinine level of 14, means he was in renal failure?
A Yes.
Q When your creatinine level gets that high, do you continue to suffer damage to your kidneys just because the kidneys are working overtime? I think you said that earlier, right?
A Yes.
Q So, if he comes to St. Luke's on May 1st, he's in renal failure? He's not doing well, obviously. He's not healthy? He's not able to keep food down, not able to keep water down. He's in distress?
A Yes.
Q And the biopsy is not taken until -- can I have the Columbia report? It's taken on the fifth, right?

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MR. LYNAM: Yes.
BY MR. LAMB:
Q The biopsy is not taken until the fifth. Would you agree with me that there could have been changes in his kidneys over those three or 4 days?
A I suppose. Not too significant, but the kind of thing I am talking about is the kidneys continue to damage themselves over time is something that happens over years.
Q But my question is when a patient is in that extraordinary distress. You saw how he showed up in the emergency room, what his levels were and the fact he wasn't taking food and water, aren't there changes that still continue to take place in the kidneys between his admission to E.R. and when that biopsy is taken?
A I don't think so. I mean not particularly. I think we just have different models of how this injured him. He had advanced chronic kidney disease, was exposed to a nephrotoxin that damaged -- again, obviously, this is my opinion, you know that, that damaged enough of his remaining kidney function so that he got all the progressive symptoms of kidney failure. Those include dehydration, severe acidosis, severe anemia, those in turn damaged his kidneys going

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forward. That continues as he goes to the E.R.
When he's given fluid, there may be some restoration of volume depletion that is making his kidney function worse. But he needs dialysis. Dialysis itself can cause some injury to the kidney theoretically. But the tipping point or the precipitant is still the nephrotoxin.
Q Can you sit there and say to a reasonable degree of medical certainty that the alleged acute changes that you saw at brush borders could not have been due to dehydration or something else that occurred in the week before he arrived at the E.R.?
A To a legal degree of medical certainty, I don't think there was. It is a mix of things triggered by the nephrotoxin. So as you become uremic it's sort of a vicious cycle of downward spiral. So, part of uremia is getting behind it. So, it's part and parcel of the same process. To a reasonable degree of medical certainty, I think it is the nephrotoxin that tipped him over and nothing else, obviously based on testimony and medical records.
Q If he had the flu after he was at Pilot Travel Center, would you question whether it was the flu or the alleged nephrotoxin that caused his tipping over as you say?

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A If any number of other things that could be potentially nephrotoxic happened, it would be hard to slice and dice it and come up with a single answer. There's multiple factors you would try to sort out. What it was it was something more dependent on the people who were treating him at the time, then I could get retrospectively looking at the records.
Q If he had never gone to Pilot, just continued as a plumber, he had a bad case of the flu that winter, could you say whether or not that could have tipped him over to renal failure?
A Really bad flu could. Terrible flu could, sure.
MR. LAMB: Tom, you don't have anything, I guess?
MR. HARRINGTON: One or two.
MR. LAMB: Okay. Go ahead.

CROSS EXAMINATION BY MR. HARRINGTON:
Q Doctor, would you list for me again the symptoms that you associate with someone who has suffered from acute kidney injury?
MR. LYNAM: I will just object to the form. Asked and answered. You are asking him the exact same question that Pat

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already asked.
MR. HARRINGTON: You want me to have the court reporter try to find it --
MR. LYNAM: Go ahead. Answer it again.
MR. HARRINGTON: Pardon me. We are both speaking at the same time and it makes it very difficult for anybody to understand what anybody is saying.
MR. LYNAM: Tom, I asked the witness to go ahead and answer the question for a second time for your benefit.
MR. HARRINGTON: Thank you very much.
BY MR. HARRINGTON:
Q Go ahead Doctor.
A The answer I gave was actually, I think, the symptoms of more uremia than acute kidney injury. Someone with acute kidney injury would often not have symptoms if it were just an acute kidney injury. They might notice a drop in their urine output. Or they might have symptoms associated with the cause of the acute kidney injury. They might then go on to develop the symptoms of kidney failure which is what I was talking about. And some of those are nausea,

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typically morning nausea as opposed to nausea the rest of the day that is often relieved by eating breakfast. A metallic taste in the mouth, loss of interest in meat, trouble with calculation, insomnia, itching, symptoms of anemia which can be fatigue or shortness of breath, sometimes headaches. Those are the main ones anyway.
Q Now, were you just describing the symptoms of someone who only had an acute kidney injury or is that someone who had the acute kidney injury on top of chronic kidney disease?
A No, it's neither of those. It's the symptoms of someone with kidney failure or what would be called uremia.
Q Okay. What are the symptoms then that someone would experience if he had chronic kidney disease and an acute kidney injury to exposure to a toxin?
A They would typically not have symptoms of their chronic kidney disease until very late. And then if they had an acute kidney injury that tipped them over into end stage kidney disease or uremic symptoms, those would be the symptoms I mentioned.
Q How quickly would the symptoms that you mentioned attributable to acute kidney disease present

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themselves following the exposure to the toxin?
A I would say it would be very variable. This history is a pretty reasonable one that he had. I think it was a week or so and then started developing progressively worsening symptoms.
Q So, within a week, would you say?
A No, I don't think there's a really good timeline. It would depend on the extent of their chronic kidney disease and the extent of the acute injury. I don't think that there would be sort of a typical timeline. I would say his is typical of that.
Q And when did you say he began to develop his symptoms?
A I will just try to get the dates correct. I believe it was about a week or two after exposure. And then about a month of progressive symptoms. But I may want to look at the records to be sure about that. Unfortunately, I didn't write down the exact dates in my report. I look at it. It seemed very typical, but didn't write down the dates. So I apologize about that. I could provide that to you later after looking at the records.
Q Would you agree or disagree that the symptoms you described would normally present themselves within four to 5 days after the exposure

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that caused the acute kidney injury?
A No, I would disagree.
Q And do you know how many days it was between Mr. Marino's alleged exposure to the toxins and his presentation to the hospital?
A The number that sticks in my mind is six weeks, but I would want to double check on that.
Q That would be beyond what you would think is normal for the presentation of the symptoms, would it not?
A No. I think it would be very typical. It would be variable how rapidly the symptoms would develop. And it would be variable of what someone's threshold to seek medical attention would be. So, I don't think there's really a typical time course. I think a couple of weeks and a month are definitely within the range.
Q You think if someone suffered from all those symptoms you described could do work as a plumber everyday?
A I can tell you I'm amazed at what symptoms people will put up with to go to work.
Q I guess you didn't hear or understand my question.
A Could he still work as a plumber with those

symptoms? And the answer is, yes.
Q No matter how severe they became?
A I'm amazed at how many symptoms people will put up with to continue to work. It's astonishing.
Q We have fatigue, insomnia, bad taste in the mouth, nausea, vomiting, inability to calculate and he could still work as a plumber?
A I have people who do manual work like that despite incredibly advanced kidney disease.
Q For five weeks?
A The person I am going to go see in my office right after I finish this deposition is on dialysis now, is learning to do home hemodialysis. Is a carpenter and a contractor and I am been begging him to start dialysis for the last probably two or three months based on similar levels of kidney function to Mr. Marino but with medical management. So, he's not anemic and he doesn't have such a buildup of acid in his blood and careful dietary management so his potasium isn't high. Probably lost 30 pounds of weight. Unable to sleep. He continued to work because he has to. So, what people do amazes me.
Q And what did you say his job was?
A He is a carpenter and contractor. He was actually doing roofing despite all of this. He was

doing roofing and I was losing sleep because I was worried that he was going to die from not being on dialysis.
Q So why do you write that you disagree with the conclusion reached by the nephrologist that treated Mr. Marino while he was a patient at St. Luke's?
A What conclusion is that? I don't think I disagreed with them.
Q That the reason his kidneys failed was due to chronic kidney disease and not any acute injury.
MR. LYNAM: Let me object the form, it misstates the facts. What documents are you referring to Tom?
MR. HARRINGTON: What we used as the discharge summary in the deposition of doctor -- what was his name?
MR. LYNAM: Doctor Datch who did not review the Columbia report during the treatment and was shown during the deposition. That part of the testimony you are talking about Tom?
MR. HARRINGTON: You were representing that I was misrepresenting the facts.

MR. LYNAM: I just want to make sure I understand your question because that wasn't Datch's testimony. If you want to point to a document we can pull it out for the doctor.
MR. HARRINGTON: How about the discharge summary?
THE WITNESS: I got the renal consult in front of me now. The nephrologist who saw him as an original consultant, I believe, was Dr. Snyder.
MR. HARRINGTON: Yes. And he deferred to his partner because he came in on an emergency basis on a day of --
MR. LYNAM: Would you like the witness to answer the question. You asked the question and then you cut him off. Do you want his answer or not?
MR. LAMB: Can I solve this problem? Tom let me help you out. Hold on for a second. I am sitting right here.
Tom I am going to refer the doctor to page two of the discharge summary where Dr. Datch's opinion is contained in there and have him read that and maybe then you

can reask your question.
MR. HARRINGTON: I appreciate your assistance.
THE WITNESS: Yes. Okay.
BY MR. HARRINGTON:
Q Would you read it for me please?
A Sure. Out loud?
Q Yes. Please.
A "Dr. Datch's felt that he probably had longstanding interstitial kidney disease and this was probable cause of his end stage renal disease".
Q And you disagree with that conclusion by Dr. Datch?
A Just a little bit. Because I think there are nuances to the renal pathology that Dr. Datch wasn't aware of at that time and I don't think understood as of the time of his deposition. But his medical care is excellent. Very good medical care. I just disagree with that point.
Q Did you know Mr. Marino was seen by another nephrologist for a second opinion at the request of his family physician?
A I haven't seen those records. I saw mention of it in Dr. Rudnick's report.
Q So, assuming that the doctor who gave the

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second opinion to his family doctor came to the same conclusion as Dr. Datch, you would disagree with that nephrologist's opinion?

A No, that is not a fair question. I would have to look at his records and see what evidence he used to reach his conclusion. I might agree with him. But I would need to look at his records. I'd need to know exactly what his opinion was and how much he felt was chronic and how much of it was acute. I think regardless, when someone is giving opinions about Mr. Marino's medical care, he's receiving excellent medical care so there would be no disagreement there. Again, I would have to look at the specifics of what information he had, what conversations he had with the pathologist and what his conclusions were. And I would be happy to do that.

Q Do you think it is necessary for the treating nephrologist to have conversations with the pathologist?

A It is usual. It is typical in the standard of care. Sometimes it is, sometimes it isn't. If you're Dr. Datch taking care of Mr. Marino, it's not clinically necessary at all. If you're Doctor Datch who's going to be asked to give a specific opinion about what portion of Mr. Marino's kidney disease is

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chronic or acute, then it would be necessary. But for his medical care it would not be necessary. Again, I have no criticism of Dr. Datch's medical care. It was excellent.

Q If the opinion of the doctor who gave Mr. Marino's family doctor a second opinion was the same, namely that his kidney problems were the result of chronic kidney disease, would you disagree with that doctor's opinion?

MR. LYNAM: Tom, I am going to object to the form. It misstates the facts. If you want to show him something --

MR. HARRINGTON: Oh, should I make the trip right now, Tom?

MR. LYNAM: No. I would have assumed you would have prepared for the deposition and if you had documents you wanted to show to the witness, you would have sent them to Pat and he would have sent them to me so we could put them in front of the witness. You're summarizing --

MR. HARRINGTON: Keep talking Tom. Keep talking.

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MR. LYNAM: Next question Tom. We are not accepting your inaccurate summarization of the medical records.

MR. HARRINGTON: That is your objection to the question?

MR. LYNAM: Yes. Ask the next question, please, Tom.

MR. HARRINGTON: Are you instructing the witness that he can't answer it?

MR. LYNAM: Are you asking this witness to accept your brief summarization of what --

MR. HARRINGTON: Is your objection --

MR. LYNAM: I didn't hear what you said Tom.

MR. HARRINGTON: I said, is your objection an instruction to the witness not to answer my question?

MR. LYNAM: If I would have instructed the witness not to answer, you would have heard me say I instruct the witness not to answer.

MR. LAMB: Tom, just reask the

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question.

MR. HARRINGTON: Court reporter, read back my last question, please.

MR. LAMB: Tom, what I need to do, Tom Harrington and Tom Lynam, for the benefit of my good friend here Bob Miller is to make sure because there is a delay on the phone, when you guys get into an argument let each other finish so Mr. Miller can take down everything. I am sure he's losing stuff. So, Tom Harrington sometimes maybe silence is better until Tom Lynam finishes in the room and then you can respond. Do you know what I am saying?

MR. HARRINGTON: Yes, sir.

MR. LAMB: Tom Harrington, do you need more than nine minutes to wrap up this witness?

MR. HARRINGTON: I do not.

MR. LAMB: Go ahead, please, ask your question.

BY MR. HARRINGTON:

Q Doctor, if the findings and conclusions of the nephrologist who examined Mr. Marino at the request of Mr. Marino's family doctor were the same

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findings and conclusions that Dr. Datch reached, namely that Mr. Marino's kidney problems were the result of chronic kidney disease rather than an acute kidney injury, would you disagree with the findings of that nephrologist?

A I would want to look at the specific report and hear what information he based that on, but I would say that none of us disagree that much. There's a lot of chronic kidney disease here. And it's my opinion supported by the renal pathology that he was tipped over by something. So, yes, there's a lot of chronic kidney disease, but the nuances I think are important. Not for his clinical care, but for determining who's at fault, you will will.

Q Are you saying Doctor then that Dr. Datch in the second opinion, the nephrologist, missed the subtleties that you're relying on?

A I believe so. It is complicated. I haven't seen the report of the other doctor. And clinically this is chronic kidney disease in effect. I don't know how else to answer that. You are asking me to give my opinion about a report I haven't read. I said what I think about Dr. Datch that he hadn't seen the pathology report when he gave his opinion. So that is all I can say about that. I am sorry.

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Q You mean Dr. Datch had not seen the pathology report at the time of Mr. Marino's discharge?

A I believe not. I just read Dr. Datch's deposition. And I certainly think he did not talk to the pathologist. I would want to look at that again. I am sorry.

Q Let's try that again. Are you telling me that you don't think that Dr. Datch had looked at the pathology report from Columbia at the time Mr. Marino was discharged?

A I don't recall. I would want to look at his deposition again. As far as the clinical care of Mr. Marino, Dr. Datch did exactly what he needed to do, and I have no criticism of Dr. Datch's clinical care.

Q No further questions.

MR. LYNAM: A couple of quick follow-ups.

CROSS EXAMINATION BY MR. LYNAM:

Q Can you explain generally the types of medication a patient will need after a kidney transplant?

A Yes. They will usually need

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antihypertensive for the most part. Often they will need Lorie medications and diabetes medications depending on what immunosuppressants they need. They will need an antibiotic typically or several sometimes early in the course of a transplant. Then the main thing they will need is the immunosuppressing medications which are usually 2 or 3 medications.

Q And what precautions does a patient need to take who's taking immunosuppressant medication?

A They need to be very careful about keeping up regular cancer screening, in particular skin cancer. They have to be careful about going outside. Generally if they do, they need to have sun block. And they need to be careful about being exposed to infectious agents.

Q So, if somebody was, say for example, a plumber who worked with waste sewage pipes, things of that nature, would that kind of work be contraindicated for a patient with that type immunosuppressant medication?

MR. LAMB: Objection.

MR. LYNAM: You can answer.

MR. HARRINGTON: I am going to object to these series of questions as being beyond the scope of the doctor's

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expert report.

MR. LYNAM: Well, he's now in a deposition. It was the defense's option to depose this witness and now this is within the scope of his testimony.

THE WITNESS: I would keep him out of the sewers, yes.

BY MR. LYNAM:

Q So, the type of work that he was doing, commercial and residential plumbing that had to do with not only freshwater plumbing but the sewage plumbing and working in pits and things of that nature, that is something that you would not want to see somebody with this type of medication engage in?

MR. HARRINGTON: Objection.

A Correct. And you would want to keep them away from potential nephrotoxins.

(At which time the proceedings went off the record.)

(After a recess off the record, the following occurred.)

BY MR. LYNAM:

Q Doctor, are you familiar with what MSDS sheets are?

A Yes.

Q Have you had occasion to rely on them in the practice of medicine?
MR. LAMB: Objection.
A Yes.
Q I am going to ask you to assume for the purpose of this question -- strike that.
You have seen the MSDS sheets in this case, correct?
A Yes.
Q And they were MSDS sheets for toluene and for diesel fuel, correct?
A Yes.
Q And did they list any adverse reactions that would be expected with regard to the kidneys?
A Basic kidney injury. I forget the exact wording. Kidney damage was a potential side effect.
Q So, the toluene MSDS sheet, I believe, said that a target organ was kidney. And the diesel, I believe said it would be an expected response from skin absorption would be kidney damage.
When you as a physician see something like that in a MSDS sheet, is that something you would rely on as being scientifically valid?
A Yes.
MR. LAMB: Sorry, objection to the

last question.
BY MR. LYNAM:
Q We talked about this tipping point and the various things that could push a person with a chronic kidney disease over this tipping point, would it be fair to say --
MR. LAMB: I will object -- fair to say, Drew actually pointed this out to me the other day. I have to object to is it fair to say because everything in my mind is fair to say. We had this debate before. I am not trying to delay the video. Drew just pointed it out to me the other day, Tom Lynam, is it's fair to say. If you could not use fair to say. I mean you can, but I'm going to object to it here and at trial. Everything is fair to say.
BY MR. LAMB:
Q I will withdraw the question. That's all.
MR. LAMB: I will not trying --
BY MR. LAMB:
Q No more questions. Thank you.
MR. HARRINGTON: I would like a transcript.
THE VIDEOGRAPHER: It is 11:31 a.m.

We are going off the record.
(At 11:31 the deposition was concluded.)

STATE OF CONNECTICUT)
) ss:
COUNTY OF HARTFORD)
I, Robert Miller, a Notary Public, do hereby certify that Dr. Eric Brown was by me first duly sworn, to testify the truth, the whole truth, and nothing but the truth, and that the above deposition, was recorded stenographically pursuant to Notice by me and reduced to printed transcript by me.
I FURTHER CERTIFY that the foregoing transcript of the said deposition is a true and correct transcript of the testimony given by the said witness at the time and place specified hereinbefore.
I FURTHER CERTIFY that I am not a relative or employee or attorney or counsel of any of the parties, nor a relative or employee of such attorney or counsel, or financially interested directly or indirectly in this action.
IN WITNESS WHEREOF, I have hereunto set my hand and seal of office at East Hartford, Connecticut, this day of , 2015.

(SEAL)
Robert Miller, Notary Public

My Notary Commission Expires
April 30, 2019

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EXHIBITS

(For Identification)

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